

AT-S39 Version 3.0.1 Management Software for the AT-8000 Series Fast Ethernet Switches

Software Release Notes

**Please read this document before you begin to use the AT-S39
management software.**

Supported Platforms

AT-S39 Version 3.0.1 management software is supported on the following Allied Telesyn Fast Ethernet switches:

- AT-8016F/SC and MT
- AT-8024
- AT-8024M
- AT-8024GB
- AT-8026FC

Product Documentation

For hardware installation instructions, refer to the following guide:

- AT-8000 Series Installation Guide (PN 613-50244-00)

For management instructions, refer to the following guides:

- AT-S39 Version 3.0 Management Software User's Guide (PN 613-50245-00)
- AT-S39 Version 3.0 Command Line User's Guide (PN 613-50354-00)

The installation guide is provided on the documentation CD included with the product. The user guides are available from the Allied Telesyn web site at [**www.alliedtelesyn.com**](http://www.alliedtelesyn.com).

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Upgrading from AT-S39 Version 1.4.2 or later to AT-S39 Version 3.0.1

This section contains the procedure for upgrading a switch running Version 1.4.2 or later to Version 3.0.1 from a local management session using the Xmodem protocol. (You can also load the new software using TFTP, as explained in the AT-S39 User's Guide.) The current switch configuration information, such as IP address and VLANs, is retained when new management software is installed.

Before you begin the upgrade procedure, please note the following:

- You do not need to upgrade an AT-8000 Series switch if it came with these software release notes in the shipping box. The switch already contains the latest AT-S39 management software and bootloader.
- The switch must be running AT-S39 Version 1.4.2 or later before you can upgrade it to Version 3.0.1. If the switch is running an earlier version, you must first upgrade it to Version 1.4.2 by obtaining the management software and following the instructions in the appropriate AT-S39 Software Release Notes.
- In networks consisting of several AT-8000 switches, you can simplify the upgrade procedure by first upgrading a master switch to Version 3.0.1 and then downloading the new software switch to switch from the master switch to the slave switches, provided that the slave switches are running Version 1.4.2 or later.
- In several earlier software versions, the image file and bootloader were offered as two separate files. In Version 3.0.1, the two files are combined into one file.
- Do not use the manufacturer's boot prompt (=>) to load the new software.

To upgrade a switch running AT-S39 Version 1.4.2 or later to Version 3.0, perform the following procedure:

1. Establish a local management session on the switch where you intend to download the new management software.
2. From the Main Menu, type **4** to select Administration menu.
3. From the Administration Menu, type **X** to select Xmodem Downloads and Uploads.

The following menu is displayed. (The menu may differ depending on the version of management software on the switch.)

```

Allied Telesyn AT-8024 Ethernet Switch

      Xmodem Downloads & Uploads

1 - Xmodem Image/Boot Loader Download
2 - Xmodem Config Download

3 - Xmodem Image Upload
4 - Xmodem Config Upload

R - Return to Previous Menu

Enter your selection:
  
```

Figure 1 Xmodem Downloads & Uploads Menu

4. Type **1** to select Xmodem Image/Bootloader Download.

The following prompt is displayed:

```

You are going to invoke the Xmodem download utility.
Do you wish to continue? [Yes/No]
  
```

5. Type **Y** for Yes.

The prompt "Downloading" is displayed.

6. Begin the file transfer of the new management software image. The transfer protocol must be Xmodem or 1K Xmodem.

Steps 7 through 10 illustrate how to transfer the file using the Hilgraeve HyperTerminal program.

7. From the HyperTerminal main window, select the **Transfer** menu. Then select **Send File** from the pull-down menu, as shown in Figure 2.

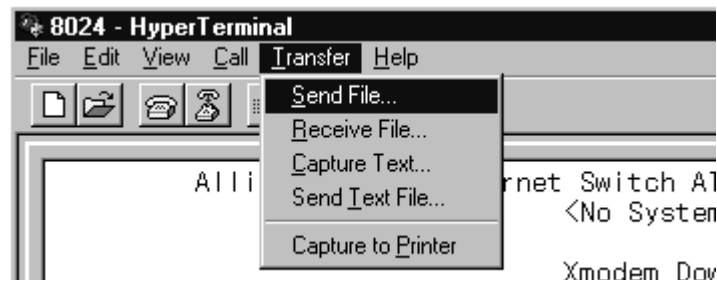


Figure 2 Local Management Window

The Send File window in Figure 3 is displayed.

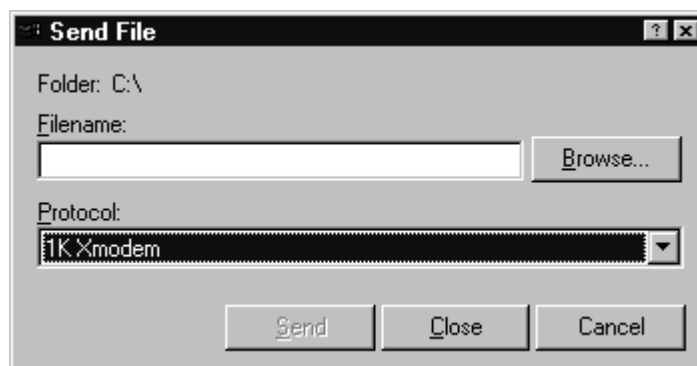


Figure 3 Send File Window

8. Click the Browse button and specify the location and filename of the new AT-S39 software image.
9. Click the Protocol field and select as the transfer protocol either Xmodem or, for a faster download, 1K XModem.
10. Click Send.

The software immediately begins to download onto the switch. The Xmodem File Send window in Figure 4 displays current status of the software download. The download process takes a couple minutes to complete.

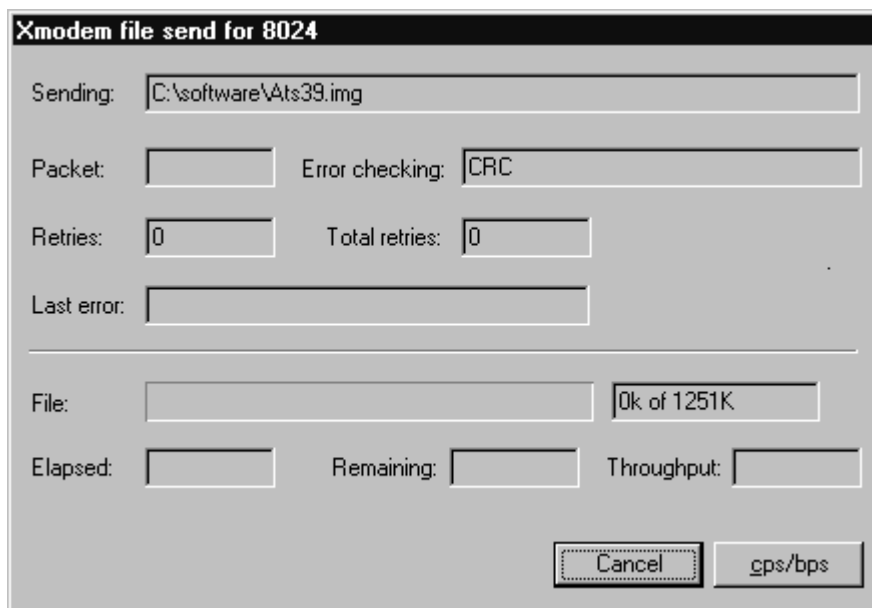


Figure 4 XModem File Send Window

The switch begins to initialize the software after it is installed, a process that takes approximately 1 minute to complete.

Note

Do not interrupt the initialization process. Do not reboot the switch.

Once the switch has finished initializing the software, the following prompt is displayed:

Please press <ENTER> key TWICE proceed with Switch Reboot ...

11. Press the Return key twice. The switch reboots and loads the new management software.
12. Once the switch has finished rebooting, press the Return key twice again to reestablish your management session.

New AT-S39 Version 3.0.1

New Features

- TFTP from a Local Management Session

You can now use TFTP, in addition to the Xmodem protocol, to download and upload files from a local management session.

- Clearing the Statistics Counters from a Web Browser Management Session

You can now clear the statistics counters from a web browser management session.

- Validation of Configuration Files

The AT-S39 management software adds validation information to a switch's configuration file when the file is uploaded to a workstation or server. The software will check for this validation when a configuration file is downloaded onto a switch. If the validation information is missing in the configuration file, the download is canceled. This feature is to prevent corrupted configuration files from being downloaded onto a switch.

Note:

This feature was added to Version 3.0.1. Configuration files from AT-8000 Series switches running earlier versions of the management software cannot be downloaded onto a switch running this software version.

- Class of IP Address and Subnet Mask

In previous versions, a switch's IP address and the subnet mask had to be of the same IP address class. The addresses can now be of different classes.

- IP address and Default Gateway

In previous versions, the network ID portions of a switch's IP address and the default gateway had to be the same. The addresses can now be of different classes.

- Broadcast Frame Timer Interval for 10, 100, and 1000 Mbps Ports

In previous versions, there were three broadcast timer intervals, one for each port speed. In this version, there are two: one for 10 and 100 Mbps ports and another for 1000 Mbps ports.

- New SHOW USER Command

This new command line interface command displays the account name under which you logged on to switch. The format of the command is:

SHOW USER

- New SET SWITCH TRUNK Command

This new command line interface command changes the load distribution method of an existing port trunk. The format of the command is:

```
SET SWITCH TRUNK=1 SELECT=MACSRC|MACBOTH
```

The MACSRC option configures the trunk for Source Address Trunking. The MACBOTH option configures the trunk for Source Address/Destination Address Trunking. Refer to the **AT-S39 User's Guide** for a description of the load distribution methods.

Resolved Issues

- Creating Tagged VLANs in a Web Browser Management Session

A web browser management session would not allow you to select a port as a tagged port when creating or modifying a VLAN. This problem has been resolved.

- IGMP Host/Router Timeout

The Host/Router Timeout was nonfunctional. This problem has been resolved.

- GBIC Ports 25 and 26 in the AT-8024GB Switch

The graphical image of an AT-8024GB switch in a web browser management session did not include the GBIC expansion slots if no GBICs were installed. This problem has been resolved.

- ACTIVATE STP and ACTIVATE RSTP

The confirmation prompt displayed by these commands did not pause for user input. This problem has been resolved.

- Up and Down Arrow Keys and the Tab Key

A switch would periodically hang when the up and down arrow keys were used to view the command history in the command line interface. The Tab key could also cause this problem. This problem has been resolved.

- Web Browser Interface

The web browser interface would periodically show the second expansion slot in an AT-8016F or AT-8024M switch as populated when the slot was empty. This problem has been resolved.

- STP and RSTP Error Messages

Error messages are now displayed if you enter incompatible hello time, forward delay, and maximum age time values.

- Management Session of a Slave Switch

Ending a management session of a slave switch caused the management session to hang if configuration changes had not been saved. This problem has been resolved.

- Statistics for an AT-8024GB

The statistics counters for an AT-8024GB switch displayed incorrect values. This problem has been resolved.

- Port 1 in a Port Trunk

You could not delete Port 1 from a port trunk. This problem has been resolved.

- STP and RSTP Port Costs for an AT-8024M

The management software periodically assigned incorrect default STP and RSTP port costs to ports on expansion modules. This problem has been resolved.

- Port Configuration

The switch would periodically lose port configuration when reset or power cycled. This problem has been resolved.

Operational Notes

- Command Line Interface and Web Browser Management

The command line interface is not available from a web browser management session. The command line interface is available from a local or a Telnet management session.

- MDI Port Setting

You must set a port's MDI setting whenever you manually set a port's speed or duplex mode. The Auto-MDI setting is available only when a port is auto-negotiating speed and duplex mode, and not when a port is configured manually. The default setting is MDI-X for a manually configured port.

- Default Subnet Mask

The default subnet mask has been changed from 255.255.0.0 to 0.0.0.0.

- Boot Prompt Message

During boot up, the switch displays the following prompt:

```
Press any key to stop image loading and go to Boot Prompt.
```

This prompt is intended for manufacturing purposes only. If you do inadvertently display the boot prompt (=>), type **boot** and press Return to start the switch's software.

- GBIC Modules

You cannot configure a GBIC slot if no GBIC module is installed.

- 10 Mbps, Half-duplex Mode End Nodes

The switch may not Auto-Negotiate correctly with some 10 Mbps, half-duplex mode end nodes. This problem can result in poor network performance. You can resolve this problem by manually configuring to 10 Mbps, half-duplex mode those switch ports that are connected to end nodes operating at that speed and duplex mode.

- Detection of Denial of Service Attacks

The management software can detect excessive amounts of management packets, which can be an indication of a denial of service attack. The switch responds by displaying the following message on the console port:

```
ATTENTION: Switch is receiving unusual volume of Management traffic.
Possible DENIAL OF SERVICE ATTACK .... Please check you network."
```

A switch experiencing a denial of service attack will continue to forward/switch regular Ethernet traffic, but it will not respond to any management packets. Consequently, the switch cannot be managed until the attack has ceased or been stopped.

- Reset and Power Cycle Times

Loading the AT-S39 firmware by the switch after a reset or a power cycle now takes between 30 to 40 seconds to complete.

- SET SWITCH PORT Command

You can set only one parameter at a time with the SET SWITCH PORT command.

- VLANs

The following changes have been made to VLANs:

- The name of the default VLAN has been changed from "Default VLAN" to "Default_VLAN".
- You can remove an untagged port from the Default_VLAN without assigning it as an untagged port of another VLAN.

- GBIC Ports 25 and 26 in the AT-8024GB Switch

Assigning Port 25 or 26 on an AT-8024GB switch to a VLAN when no GBIC module is installed can result in an incorrect PVID value being assigned to the port. For this reason, you should assign these ports to a VLAN only when a GBIC module is installed.

- IGMP

The AT-S39 software will not recognize a specific IGMP query from a multicast router. It will not flood the packet and it will not add the port receiving the query to the multicast router port list. However, the software does recognize general IGMP queries. Since most IGMP queries from multicast routers are general queries, this should not effect IGMP operation on the switch.

- Flow Control

The flow control option is displayed as active when a port is set to half-duplex. However, changing the flow control setting has no effect when a port is operating in half duplex. Flow control applies only when a port is operating in full-duplex.

- Expansion Modules and Port Trunks

An expansion slot cannot be made part of a port trunk unless an expansion module has been installed.

- Broadcast Frame Control on Expansion Modules

Broadcast frame control is not reliable when used on ports on expansion modules. For this reason it is not recommended that you use this feature to regulate the flow of broadcast frames on expansion modules.

- Port Trunking on Expansion Modules

If you intend to create a port trunk using expansion modules in an AT-8024M or AT-8016F switch, it is recommended that both expansion modules be of the same type. You should not create a port trunk using different types of expansion modules.

- Limited Security Mode

- The maximum number of MAC addresses must be set a port at a time. You cannot set the number for a range of ports.
- If you do not specify a port when configuring the maximum number of MAC addresses, the management software applies the value to Port 1.

- RMON Groups and SNMP

The AT-S39 management software supports the following RMON groups through SNMP:

- Groups 1 - Statistics
- Group 2 - History
- Group 3 - Alarm
- Group 9 - Event

Previous Version 3.0

New Features

The following new features have been added to Version 3.0:

- Support for the AT-8016F Switch
- TACACS+ and RADIUS authentication protocols
- Rapid Spanning Tree Protocol
- STP Fast Port Mode

For information on these new features, refer to the **AT-S39 User's Guides**.

Resolved Issue

- CREATE VLAN Command

The CREATE VLAN command periodically failed to correctly designate the tagged and untagged ports of a new VLAN if the VLAN contain a large number of ports. This problem has been resolved.

Previous Version 2.1

New Feature

- Support for the AT-8024M Switch

Version 2.1 adds support for the AT-8024M Fast Ethernet Switch.

Previous Version 2.0

New Features

- Console and Telnet Management

Below are new local and Telnet management functions:

- Downloading software switch to switch
- Pinging a remote system
- Adding static multicast addresses
- Specifying a management VLAN

- Web Browser Management

Below are new web browser management functions:

- Enhanced stacking
- Resetting a switch
- Pinging a remote system
- Displaying IGMP host nodes and multicast routers
- Adding static multicast addresses

- Command Line Interface

The AT-S39 software now features a command line interface for configuring a switch's parameters from a command line prompt. For information on the commands, refer to the **AT-S39 Command Line Interface User's Guide**.

- Load Distribution Method in Port Trunks

You can now choose the load distribution method of a port trunk. The selections are Source Address (SA) or Source Address / Destination Address (SA/DA).

- Auto-speed Detection on the RS-232 Terminal Port

Auto-speed detection on the console port has been expanded. The switch now adjusts the speed of the RS232 Terminal Port each time you start a local management session. You activate the auto-speed feature by pressing the Return key twice when you begin a local management session.

Resolved Issues

- Saving IP and Password Changes

The switch did not always save IP and password changes. This issue has been resolved.

- Management Sessions with a Slave Switch

Management sessions with slave switches through a master switch would periodically fail or the menus would be illegible. This issue has been resolved.

- Changing the VLAN Mode

The switch would fail to accept a change of the VLAN mode. This issue has been resolved.

- Download File Checking

The management software now performs a validation check on a file before accepting the file for download. This prevents the switch from downloading an invalid file. The program also performs a CRC error check to prevent the download of a corrupted file.

- STP Values

The switch would periodically fail to save STP settings. This issue has been resolved.

- Web Browser Management

A switch would periodically fail if managed from a web browser. This issue has been resolved.

- IP Parameters from a BOOTP or DHCP Server

The switch would fail to obtain its IP configuration from a BOOTP or DHCP server if STP was enabled. This issue has been resolved.

- Disabling IGMP Snooping

The MAC addresses of host nodes and multicast routers would change into static addresses when IGMP snooping was disabled. The addresses would remain in the MAC address table until IGMP snooping was enabled again. This issue has been resolved.

- Local Management and SNMP Management

Managing a switch through a local management session and with SNMP simultaneously would cause the local session to fail. This issue has been resolved.

- Returning a Switch to the Default Settings

Not all ports were returned to the Default_VLAN and some parameter settings were not correctly changed when the switch was returned to its default settings. This issue has been resolved.

Previous Version 1.4.2

New Features

- Management VLAN

The management software now allows you to specify any tagged or untagged VLAN in your network as a management VLAN. This feature can greatly simplify the task of configuring your AT-8000 Series switches for remote management.

- Fan Failure Trap

An SNMP trap for fan failure has been added to the software.

Resolved Issues

- Status of the VLAN Mode

A change in the VLAN mode of a switch was not always reflected in the management screen. This issue has been resolved.

- SNMP Management

Fixed problems with several MIB objects.

Previous Version 1.4.1

Resolved Issues

- Releasing an IP Address

The switch, when reset or power cycled, would not automatically release an IP address obtained from a BOOTP or DHCP server. Instead, the address would have to be manually released using the L - Release DHCP IP Address command in the Administration Menu. This issue has been resolved. An IP address obtained from a BOOTP or DHCP server is now released automatically whenever the unit is reset or power cycled. Consequently, the L - Release DHCP IP Address command has been removed from the Administration Menu.

- STP

The following STP issues were resolved:

- Changes to the STP parameters were not saved and, consequently, were lost when the switch was reset.
- The STP settings were not applied correctly on a port trunk.

- PVID Values

Not all PVID values were returned to "1" when the switch's management software was returned to its default values. This issue has been resolved.

- MDI and MDI-X Configuration

The software would occasionally fail to properly configure a port as MDI or MDI-X when the setting was specified manually. This issue has been resolved.

- Telnet Management Session

A Telnet management session of a slave switch in an enhanced stack periodically failed. This issue has been resolved.

- Local Management Session Menus

The management menus were occasionally illegible. This issue has been resolved.

- Port Link Status

The link status of a port was not always reported correctly to an end node when a port was configured manually. This issue has been resolved.

- VLAN Port Mirror

The management software did not properly configure a port selected to function as a port mirror of a VLAN. This issue has been resolved.

- Default Values

Not all switch values were returned to their default values when the Reset to Factory Default option was selected. This issue has been resolved.

- STP and Port LED

A port's LED would continue to blink after the cable had been disconnected if the port was in the STP blocking state. This issue has been resolved.

- Default VLAN and PVIDs

The PVID of a port was not set correctly if it was moved to the Default VLAN as an untagged port. This issue has been resolved.

Previous Version 1.4

New Features

- Enhanced Stacking

The enhanced stacking feature is now supported on all AT-8000 Series switches.

- Password Encryption

The management software now features password encryption in the switch configuration file. This protects your password should someone upload and view the file. A switch's password is maintained when a unit is upgraded to AT-S39 Version 1.4. Consequently, password encryption is not initiated until you assign the switch a new password after you have upgraded it.

- SNMP Management Access

You can now disable SNMP management access and so prevent individuals from managing the switch with an SNMP application. For instructions, refer to the **AT-S39 User's Guide**.

- Allied Telesyn Enterprise MIB

This version supports the complete Allied Telesyn switch MIB for SNMP remote management.

- Resetting a Switch from a Web Browser Management Session

You can now reset a switch from a web browser management session. For instructions, refer to the **AT-S39 Version 1.4 User's Guide**.

- Diagnostics Menu

The Diagnostics menu now includes the build dates and times for both the AT-S39 software and the bootloader.

- Console Timeout Value

The following changes have been made to the console timeout value:

- A new timeout value is activated immediately on the switch. Resetting the switch to activate a change is no longer necessary.
- The console timeout value now also applies when logging in to a management session. If a password is not entered after the specified period of time, the log in is canceled. This prevents future management sessions from being blocked.

Resolved Issues

- Inactive MAC Addresses

The switch would periodically fail to delete inactive MAC addresses from the MAC address table. This problem has been resolved.

- PVID and Port Reconfigurations

The management software would periodically change a PVID after a change had been made to a port's configuration (such as to its speed or duplex mode). This problem has been resolved.

- Starting a Web Browser Management Session

You no longer need to refresh the web browser window if you enter an incorrect login name or password when starting a web browser management session. You can now try to log in again without having to refresh the window.

- Password Verification

The management software would periodically fail to verify the entire password when a network administrator logged in. This problem has been resolved.

- Mirror Port in a Trunk Port

The management software no longer allows a trunk port to include a port functioning as a mirror port.

- Untagged Ports and the Default VLAN

The management software did not always return untagged ports to the Default VLAN when ports were removed from a VLAN or a VLAN was deleted. This problem has been resolved.

Previous Version 1.3.1

New Features

- Port Status in a Web Browser Management Session

You can display the status of multiple ports simultaneously from a web browser management session. In previous software versions you could display the status of only one port at a time.

- Delete MAC Address Menu Selection

The Delete MAC Address menu selection in the MAC Address Table menu of a local or Telnet management session can now delete both dynamic and static MAC addresses from the MAC address table. In previous management versions this selection could only delete static addresses. You cannot use this selection to delete a switch's MAC address, an STP BPDU MAC address, or a broadcast address.

Resolved Issues

- Static IP Address

You could not establish a Telnet or web browser management session on a switch or ping a switch if the BOOTP/DHCP option was disabled after the unit had received a static IP address. This problem has been resolved.

- New Password Confirmation Message

The management software now displays the message "Saving password" when you change the management software's password.

- TFTP GET Commands

The management software would display the following message during a local management session whenever the switch received a broadcast TFTP GET command specifying a filename other than ATS39.IMG, ATS39.CFG, or ATS39.LDR: "Upload file name not matching with predetermined name - upload aborted." The management software has been modified to ignore all TFTP messages that are not directed to the switch.

- TFTP PUT Commands

Previously, the management software would not validate a file that was downloaded with a TFTP PUT command until the switch had received the entire file, leaving open the possibility of loading an invalid image and corrupting the firmware. This has been resolved by having the management software check for a valid filename (ATS39.IMG, ATS39.CFG, or ATS39.LDR) in the TFTP PUT command. Only if the filename is valid will the switch accept the file.

Previous Version 1.3

New Features

- Simplified Software Downloads through a Local Management Session

A new item has been added to the Administration menu to simplify the task of downloading files, such as software images or configuration files, onto a switch from a local management session. The new Xmodem File Transfer menu selection eliminates the need for invalidating the current software image when installing new software. For further information on this feature, refer to **Chapter 16** in the **AT-S39 Version 1.4 User's Guide**.

- Configuring IGMP Snooping from a Web Browser Management Session

The web browser management interface now features a window for configuring IGMP snooping. For information on the new window, refer to **Chapter 27** in the **AT-S39 Version 1.4 User's Guide**.

Resolved Issues

- Telnet Management Session and Pinging over Subnets

Previous management software versions did not support managing a switch from a Telnet management session when the management workstation and the switch were on different subnets. You also could not ping the switch from a workstation on a different subnet. Both issues have been resolved.

- GBIC Auto-Negotiating

A GBIC module would periodically fail to auto-negotiate correctly with an end node. This problem has been resolved.

- GBIC Information Window

The GBIC Information window displayed incorrect information. This problem has been resolved.

- Port Configuration Window

The Port Configuration window periodically failed to display all menu options. This problem has been resolved.

Previous Version 1.1

New Features

- SNMP

This version supports SNMP version 1 and version 2c. The software supports the following Management Information Bases (MIBs):

- SNMP MIB-II (RFC 1213)
- Bridge MIB (RFC 1493)
- Interface Group MIB (RFC 1573)
- Ethernet MIB (RFC 1643)
- Remote Network MIB (RFC 1757)
- Allied Telesyn managed switch MIB

- IGMP Snooping

This version supports IGMP snooping version 1 and version 2. The management software features auto-detection of multicast routers. Additionally, the software features menu options for viewing the ports connected to multicast routers and host nodes.

- Web Browser Management

The network administrator can disable web browser management on a switch to increase switch security.

- Trivial File Transfer Protocol (TFTP)

This version supports the downloading of AT-S39 image files and switch configuration files using TFTP.

- AT-S39 Version Number and Switch Serial Number

The management software now features a new Diagnostics menu option that displays the following information:

- AT-S39 version
- Switch serial number
- Bootloader version
- Switch MAC address

Resolved Issues

- Bridge Protocol Data Units (BPDUs)

The switch would drop tagged BPDUs. This problem has been resolved.

- Port Status Window

The Port Status window would periodically display a port's VLAN ID as "0". This problem has been resolved.

- Spanning Tree Protocol (STP)

STP periodically failed to place ports of redundant paths into a blocking state, resulting in network loops. This problem has been resolved.

- VLAN Menus

This version corrects several problems in the VLAN menus and windows.

Contacting Allied Telesyn Technical Support

You can contact Allied Telesyn technical support online or by telephone or e-mail.

Online Support

You can request technical support online by accessing the Knowledge Base at **<http://kb.alliedtelesyn.com>**. You can use the Knowledge Base to submit questions to our technical support staff and review answers to previously asked questions.

Telephone Support

For technical support by phone, contact Allied Telesyn at one of the following locations:

Americas

United States, Canada, Mexico, Central America, South America
Tel: 1 (800) 428-4835

Germany

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Asia

Singapore, Taiwan, Thailand, Malaysia, Indonesia, Korea, Philippines, China, India, Hong Kong
Tel: (+65) 3815-612

Italy

Spain, Portugal, Greece, Turkey, Israel
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Australia

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